



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

April 30, 2015

Exemption No. 11111A  
Regulatory Docket No. FAA-2014-0506

Mr. Gregory S. Winton, Esq.  
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Dear Mr. Winton:

This letter is to inform you that we have granted your petition to amend Exemption No. 11111. It explains the basis for our decision, describes its effect, and lists the revised conditions and limitations.

By letters dated February 13, February 23, and February 25, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Woolpert, Inc. (hereinafter petitioner or operator) for an amendment to Exemption No. 11111. That exemption from § 91.119(c) of Title 14, Code of Federal Regulations (14 CFR) allows the operation of the Woolpert Altavian Nova Block III for the purpose of precision aerial surveys. You requested an amendment to Conditions No. 27 for operations in proximity to an airport, No. 15 for Pilot in Command certifications, and No. 3 for altitude restrictions.

In your petition, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested amendment to the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

## **The Basis for Our Decision**

The FAA has updated the conditions and limitations since the petitioner's initial grant of exemption to those found in Exemption No. 11213 to Aeryon Labs, Inc. (Docket No. FAA-2014-0642). Also in Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA-2014-0352), 11109 to Clayco, Inc. (*see* Docket No. FAA-2014-0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA-2014-0382), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an amendment to an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of an amendment is in the public interest.

## **Our Decision**

The FAA has determined that the justification for the issuance of Exemption No. 11111 remains valid with respect to this exemption and is in the public interest. Therefore, under the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Woolpert, Inc. is granted an amendment to its exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

## **Conditions and Limitations**

The conditions and limitations within Grant of Exemption No. 11111 have been superseded, and are amended as follows.

In this grant of exemption, Woolpert, Inc. is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the Woolpert Altavian Nova Block III when weighing less than 55 pounds including payload. Proposed

operations of any other aircraft will require a new petition or a petition to amend this exemption.

2. Operations for the purpose of closed-set motion picture and television filming are not permitted.
3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.
4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.
5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.
6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.
7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's

UAS Integration Office (AFS-80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g. replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.
9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g. inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.
13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.
14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for

flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.
16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.
17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.
18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.
19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.
20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.
21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.
22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N-Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.
23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

24. The UA must remain clear and give way to all manned aviation operations and activities at all times.
25. The UAS may not be operated by the PIC from any moving device or vehicle.
26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
  - a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
  - b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.
28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS-80) within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: [www.nts.gov](http://www.nts.gov).

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.
30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
  - a. Dates and times for all flights;

- b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
- c. Name and phone number of the person responsible for the on-scene operation of the UAS;
- d. Make, model, and serial or N-Number of UAS to be used;
- e. Name and certificate number of UAS PICs involved in the aerial filming;
- f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
- g. Signature of exemption holder or representative; and
- h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.

31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on December 31, 2016, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC

Regulatory Docket No. FAA-2014-0506

**WOOLPERT, INC.'S PETITION FOR AMENDMENT CONCERNING  
CONDITION AND LIMITATION NUMBER 3 TO GRANT OF EXEMPTION NO. 11111**

Submitted on February 25, 2015

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*Attorneys for Petitioner*



Petitioner, Woolpert, Inc. (“Woolpert”), by and through undersigned counsel, pursuant to the provisions of the Federal Aviation Regulations and the Federal Aviation Administration (“FAA”) Modernization and Reform Act of 2012 (“FMRA”), Section 333, Special Rules for Certain Unmanned Aircraft Systems, hereby petitions the Administrator for an amendment to Condition and Limitation number three (3) to Grant of Exemption No. 11111 (Regulatory Docket No. FAA-2014-0506), which granted Woolpert an exemption from 14 C.F.R § 91.119(c) to the extent necessary to allow operation of the Altavian Nova Block III unmanned aircraft system (“UAS”) for the special purpose of conducting precision aerial surveys.

Specifically, Woolpert seeks an amendment to Grant of Exemption No. 11111 to the extent necessary to allow operation of the Nova Block III UAS within the National Airspace System (“NAS”) at an altitude of no more than 500 feet above ground level (AGL).

Woolpert submits that the conditions and limitations set forth in Grant of Exemption No. 11111, in addition to those set forth below, will ensure the safety of the NAS, as well as the safety of persons and property on the ground.

In support thereof, Woolpert states the following:

**A. Name And Address Of The Petitioner.**

The name and address of the Petitioner is:

Woolpert, Inc.  
4454 Idea Center Blvd.  
Dayton, Ohio 45430

The point of contact for this Petition and specific contact information is as follows:

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**B. Woolpert Seeks To Amend Condition and Limitation Number 3 To Grant Of Exemption No. 11111.**

Condition and Limitation number 3 to Grant of Exemption No. 11111 states the following:

The Nova Block III UA must be operated at an altitude of no more than 400 feet above ground level (AGL). All altitudes reported to ATC must be in feet.

Grant of Exemption No. 11111 at page 9, ¶3.

**C. Extent Of The Amendment That Woolpert Seeks And The Reason Woolpert Seeks To Amend Condition And Limitation Number 3.**

Woolpert submits that Condition and Limitation number 3 to Grant of Exemption No. 11111 be amended as follows:

The Nova Block III UA must be operated at an altitude of no more than 500 feet above ground level (AGL). All altitudes reported to ATC must be in feet.

This relief is requested because Woolpert's original Petition For Exemption (Regulatory Docket No. FAA-2014-0506) sought operation of the Nova Block III UA at an altitude of no more than 400 AGL. However, as set forth more fully below, Woolpert proposes that it may safely operate the Nova Block III UA at an altitude of no more than 500 feet AGL, because most manned aircraft operations take place above 500 feet AGL. As such, any potential traffic conflict between the Nova Block III UA and manned aircraft is highly improbable and unlikely.

By operating the Nova Block III UAS at an altitude of 500 feet AGL or below, Woolpert will be able to provide additional cost-effective aerial acquisition services that are not technologically feasible to perform when the Nova Block III UAS is limited to an altitude of 400 feet AGL. Specifically, Woolpert must operate the Nova Block III UAS at an altitude of 500 feet AGL while performing certain aerial acquisition operations in order to achieve the correct base to height ratio necessary to obtain the desired imagery using the Nova Block III UA's mapping payload.

**D. The Reasons Why Granting Woolpert’s Request For Amendment Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.**

Granting the present petition for amendment will continue to further the public interest as set forth in Grant of Exemption No. 11111 at page 8, in which the Administrator found good cause for Woolpert’s proposed UAS operation because enhanced safety will be achieved by using an unmanned aircraft with the specifications described by Woolpert, and by carrying no passengers or crew, as compared to a manned aircraft of significantly greater proportions, which carries crew in addition to flammable fuel. Woolpert’s proposed UAS operations, at or below 500 feet AGL, will provide benefits to agriculture, science, the environment, wildlife monitoring, forestry, and energy. Furthermore, the benefits of Woolpert’s proposed operation of the Nova Block III UAS will be realized without implicating any privacy issues.

Granting of Woolpert’s proposed amendment will fulfill the Congressional mandate of the FAA Modernization and Reform Act of 2012, by allowing Woolpert to safely, efficiently, and economically operate the Nova Block III UAS commercially within the NAS at or below 500 feet AGL.

**E. The Reasons Why Granting An Amendment To Condition And Limitation Number 3 Would Not Adversely Affect Safety.**

Woolpert proposes that it may safely operate the Nova Block III UA at an altitude of no more than 500 feet AGL, because the majority of manned aircraft operations within the national airspace system take place at altitudes above 500 feet AGL. Specifically, pursuant to the Federal Aviation Regulations (14 C.F.R part 91), manned aircraft operations conducted over uncongested areas must be flown at an altitude above 500 feet AGL, while manned aircraft operations conducted over congested areas must be flown at an even higher altitude<sup>1</sup>. Thus, a 500-foot

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<sup>1</sup> 14 C.F.R. §91.119, entitled *Minimum safe altitudes*, states the following, in part:

altitude ceiling for operation of the Nova Block III UAS would necessarily create a safety buffer between the unmanned aircraft and the manned aircraft, while operating together within the NAS.

In the FAA's recently published notice of proposed rulemaking (NPRM) entitled *Operation and Certification of Small Unmanned Aircraft Systems* (80 Fed. Reg. 9544-February 23, 2015), concerning specific rules (14 C.F.R. part 107) to allow the operation of small unmanned aircraft systems in the NAS, the agency proposed 500 feet AGL as the vertical area-of-operation boundary, because most manned aircraft operations take place above 500 feet AGL. Specifically, the FAA stated the following, in relevant part:

Next, we turn to the vertical boundary of the confined area of operation. With regard to the vertical boundary, the FAA proposes, in § 107.51(b), to set an altitude ceiling of 500 feet above ground level (AGL) for small UAS operations that would be subject to this proposed rule. The FAA chose to propose 500 feet as the vertical area-of-operation boundary because most manned aircraft operations take place above 500 feet. Specifically, most manned aircraft operations conducted over uncongested areas must be flown at an altitude above 500 feet AGL, while most manned aircraft operations conducted over congested areas must be flown at an even higher altitude. Thus, a 500-foot altitude ceiling for small UAS operations would create a buffer between a small unmanned aircraft and most manned aircraft flying in the NAS.

The FAA notes that while most manned aircraft operations fly above the 500-foot ceiling proposed in this rule, there are some manned-aircraft operations that could fly below this altitude. For example, aerial applicators, helicopter air ambulance services, and military operations conducted on military training routes often fly at an altitude below 500 feet. However, even though some manned aircraft operations take place at an altitude below

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Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(b) *Over congested areas.* Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) *Over other than congested areas.* An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

500 feet, there is significantly less air traffic at or below 500 feet than there is above 500 feet altitude. As a result of this difference in air-traffic density, the FAA has determined that small UAS operations would not pose a significant risk to manned aircraft operations taking place below 500 feet altitude if proper precautions are taken by the small UAS operator.

80 Fed. Reg. 9543 (2015)

As such, Woolpert respectfully submits that an equivalent level of safety will be maintained, as presented in Grant of Exemption No. 11111, because all other conditions and limitations will remain in effect, which ensures that no risk is posed to any manned aircraft operations taking place below 500 feet AGL.

**F. A Summary That Can Be Published In The *Federal Register*, stating:  
The Rules From Which Woolpert Seeks Exemption:**

*Woolpert, Inc. seeks to amend Condition and Limitation number three to Grant of Exemption No. 11111.*

**A Brief Description Of The Nature Of The Exemption Woolpert Seeks:**

*This amendment to Grant of Exemption No. 11111 will permit Woolpert, Inc. to safely operate the Nova Block III UA within the National Airspace System (NAS) at an altitude of no more than 500 feet above ground level (AGL).*

**G. Any Additional Information, Views, Or Arguments Available To Support  
Woolpert's Request.**

This Petition is made pursuant to the FAA Modernization and Reform Act of 2012 Section 333, which directs the Secretary of Transportation to determine if certain UAS may operate safely in the NAS. As such, Woolpert's request for amendment may be granted pursuant to the authority of FMRA Section 333 and 14 C.F.R. Part 11, as set forth above.

**CONCLUSION**

**WHEREFORE**, in accordance with the Federal Aviation Regulations (14 C.F.R) and the FAA Modernization and Reform Act of 2012, Section 333, Woolpert respectfully requests that the Administrator grant this Petition for amendment to Grant of Exemption No. 11111, to the

extent necessary to allow Woolpert to operate the Nova Block III UAS within the NAS at an altitude of no more than 500 feet AGL.

Dated: February 25, 2015

Respectfully submitted,

**The Aviation Law Firm**

*/s/ Gregory S. Winton*

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UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC

Regulatory Docket No. FAA-2014-0506

**WOOLPERT, INC.'S PETITION FOR AMENDMENT TO CONDITION AND  
LIMITATION NUMBER 15 OF GRANT OF EXEMPTION NO. 11111 AND  
SEEKING RELIEF FROM THE REQUIREMENTS OF  
TITLE 14 CODE OF FEDERAL REGULATIONS SECTION 61.113(a) & (b)**

Submitted on February 23, 2015

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*Attorneys for Petitioner*

Petitioner, Woolpert, Inc. (“Woolpert”), by and through undersigned counsel, pursuant to the provisions of the Federal Aviation Regulations (14 C.F.R. § 11.61) and the Federal Aviation Administration (“FAA”) Modernization and Reform Act of 2012, Section 333, Special Rules for Certain Unmanned Aircraft Systems, hereby petitions the Administrator for an amendment to Condition and Limitation number fifteen (15) of Grant of Exemption No. 11111 (Regulatory Docket No. FAA-2014-0506), which granted to Woolpert an exemption from 14 C.F.R. § 91.119(c) to the extent necessary to allow Woolpert to operate the Altavian Nova Block III unmanned aircraft system (“UAS”) for the special purpose of precision aerial surveys.

Specifically, Woolpert seeks an amendment to Condition and Limitation number 15 of Grant of Exemption No. 11111, which will grant relief from the regulatory requirements of 14 C.F.R. § 61.113(a) and (b), entitled *Private pilot privileges and limitations: Pilot in command*, to the extent necessary to allow a Pilot in Command (“PIC”) holding a private pilot certificate or higher and an appropriate airman medical certificate, and who has completed the Nova Block III UAS training and currency requirements, to conduct the proposed UAS flight operations for compensation.

Woolpert submits that the conditions and limitations set forth in Grant of Exemption No. 11111 and herein will ensure the safety of the National Airspace System (“NAS”), as well as the safety of persons or property on the ground.

In support thereof, Woolpert states as follows:

**A. Name And Address Of The Petitioner.**

The name and address of the Petitioner is:

Woolpert, Inc.  
4454 Idea Center Blvd.  
Dayton, Ohio 45430



The point of contact for this Petition and specific contact information is as follows:

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**B. Woolpert Seeks An Amendment To Condition And Limitation Number 15 Of Grant Of Exemption No. 11111 And Exemption From The Requirements Of 14 C.F.R. § 61.113(a) And (b).**

Condition and Limitation number 15 of Grant of Exemption No. 11111 states the following:

15) The PIC must possess at least a FAA-issued commercial pilot certificate and a valid FAA-issued first or second class airman medical certificate. The PIC must also meet the flight review requirements specified in 14 C.F.R. 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

Exemption No. 11111 at page 11, ¶15.

Section 61.113, entitled *Private pilot privileges and limitations: Pilot in command*, subsections (a) and (b) prescribe the following, in relevant part:

(a) No person who holds a private pilot certificate may act as a pilot in command (PIC) of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as PIC of an aircraft.

(b) A private pilot may, for compensation or hire, act as PIC of an aircraft in connection with any business or employment if—

(1) The flight is only incidental to that business or employment; and

(2) The aircraft does not carry passengers or property for compensation or hire.

**C. Extent of Relief Woolpert Seeks And The Reason Woolpert Seeks Amendment To Condition And Limitation Number 15 And Relief From Section 61.113(a) And (b).**

Relief from Section 61.113(a) and (b) entitled *Private pilot privileges and limitations:*

*Pilot in command*, is requested to the extent necessary to allow a PIC holding a private pilot

certificate or higher and an appropriate airman medical certificate, and who has completed the Nova Block III UAS training and currency requirements, to conduct the proposed UAS flight operations for compensation.

This relief is requested since the limitations set forth in Section 61.113(a) and (b) state that a private pilot may, for compensation or hire, act as PIC of an aircraft in connection with any business or employment if: (1) The flight is only incidental to that business or employment; and (2) The aircraft does not carry passengers or property for compensation or hire.

As set forth more fully below, Woolpert submits that an equivalent level of safety will be maintained because no PIC will be allowed to operate the Nova Block III UAS unless that PIC has demonstrated, through the Nova Block III UAS training and currency requirements, that the PIC is able to safely operate the Nova Block III UAS in a manner consistent with the operations specifications as described in this exemption, including evasive and emergency maneuvers, as well as maintaining appropriate distances from people, vessels, vehicles and structures.

Further, Woolpert submits that all flights of the Nova Block III UAS, conducted by the PIC pursuant to the grant of this Petition: (1) will be incidental to Woolpert's business; and (2) will not carry passengers or property for compensation or hire.

**D. The Reasons Why Granting Woolpert's Request For Amendment Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.**

Granting the present petition for amendment will further the public interest as set forth by the Administrator in Grant of Exemption No. 11111. As the Administrator held in Grant of Exemption No. 11111 at page 8, the enhanced safety achieved using an unmanned aircraft ("UA") with the specifications described by Woolpert and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gave the FAA good cause to find that Woolpert's UAS operation is in the public

interest. The Woolpert's UAS operations will provide benefits to agriculture, science, the environment, wildlife monitoring, forestry, and energy. Furthermore, the benefits of Woolpert's proposed operation of the Nova Block III UAS will be realized without implicating any privacy issues.

Woolpert's proposed amendment not only furthers the public's interest as set forth by the Administrator in Grant of Exemption No. 11111, it also is another step forward in fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, by allowing Woolpert to safely, efficiently, and economically operate the Nova Block III UAS commercially within the NAS.

**E. The Reasons Why Granting The Amendment Would Not Adversely Affect Safety, Or How The Amendment Would Provide A Level Of Safety At Least Equal To That Provided By The Rule From Which Woolpert Seeks Exemption.**

Woolpert submits that the equivalent level of safety established by Section 61.113(a) and (b) will be maintained because no PIC will be allowed to operate the Nova Block III UAS unless that PIC has demonstrated, through the Nova Block III UAS training and currency requirements, that the PIC is able to safely operate the Nova Block III UAS in a manner consistent with Grant of Exemption No. 11111, including evasive and emergency maneuvers and maintaining appropriate distances from people, vessels, vehicles and structures.

Considering Woolpert's area of operations and the conditions limitations set forth in Grant of Exemption No. 11111; the parallel nature of private pilot aeronautical knowledge requirements to those of commercial pilot requirements (*See* Exemption No. 11062); and the airmanship skills necessary to safely operate the Nova Block III UAS, Woolpert submits that the additional manned airmanship experience of a commercially certificated pilot would not correlate to the airmanship skills necessary for Woolpert's specific flight operations.

Furthermore, Woolpert will continue to ensure that the PIC and Visual Observer (VO) meet all of the conditions and limitations set forth in Grant of Exemption No. 11111.

Concerning PIC and VO training, experience, and currency requirements, Condition 16 of Exemption No. 11111 states as follows:

Prior to operating for hire, the PIC and VO must have successfully completed Woolpert's training syllabus as outlined in the operator's guide. In addition, the PIC and VO must also have successfully completed annual (recurrent) training in accordance with the operator's guide. A record of training must be documented and made available upon request by the Administrator. Prior documented flight experience that was obtained in compliance with applicable regulations may satisfy this requirement. Training, proficiency, and experience-building flights can also be conducted under this grant of exemption to accomplish the required flights and flight time.

Exemption No. 11111 at page 11, ¶16.

As such, a grant of this amendment would ensure an equivalent level of safety established by Section 61.113(a) and (b) because Woolpert will utilize a PIC holding a private pilot certificate or higher and an appropriate airman medical certificate, and who has completed the Nova Block III UAS training and currency requirements, to conduct the proposed UAS flight operations for compensation.

Additionally, the FAA has previously granted relief from Section 61.113(a) and (b) specific to UAS, in circumstances similar, in all material respects, to those presented herein (e.g. Exemption Nos. 11062, 11063, 11064, 11065, 11066, 11067, 11080, 11109, 11110, 11112, 11136, 11138, 11150, 11153, 11156, 11158, 11159, 11160, 11161, 11170, 11171, 11172).

As in Exemption No. 11109, Woolpert will not allow any PIC to operate the Nova Block III UAS unless that PIC has demonstrated through the Nova Block III UAS training and currency requirements, that the PIC is able to safely operate the Nova Block III UAS in a manner consistent with Grant of Exemption No. 111111, including evasive and emergency maneuvers and maintaining appropriate distances from people, vessels, vehicles and structures.

The Nova Block III UAS training and currency requirements are set forth in the Woolpert Nova UAS Operations Manual attached hereto as Exhibit A. Exhibit A contains proprietary information and is to be held in a separate file pursuant to 14 C.F.R. § 11.35(b)<sup>1</sup>.

**F. A Summary That Can Be Published In The *Federal Register*, stating:  
The Rules From Which Woolpert Seeks Exemption:**

*Woolpert, Inc. seeks to amend Condition and Limitation number 15 of Grant of Exemption No. 11111 to include an exemption from the requirements of 14 C.F.R Section 61.113(a)&(b).*

**A Brief Description Of The Nature Of The Exemption Woolpert Seeks:**

*This amendment to Grant of Exemption No. 11111 will permit Woolpert, Inc. to utilize a Pilot in Command (PIC) holding a private pilot certificate or higher and an appropriate airman medical certificate while conducting UAS aerial acquisitions and research within the National Airspace System (NAS).*

**G. Any Additional Information, Views, Or Arguments Available To Support  
Woolpert's Request.**

This Petition is made pursuant to the FAA Modernization and Reform Act of 2012 (FMRA) Section 333, which directs the Secretary of Transportation to determine if certain UAS may operate safely in the NAS. As such, Woolpert's request for an amendment to Grant of Exemption No. 11111 may be granted pursuant to the authority of FMRA Section 333 and 14 C.F.R. Part 11, as set forth above.

FMRA Section 333 sets forth the requirements for considering whether a UAS will create a hazard to users of the NAS or the public, or otherwise pose a threat to national security; and further, provides the authority for such UAS to operate without airworthiness certification.

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<sup>1</sup> Exhibit A to this Petition contains proprietary information, and in accordance with 14 C.F.R. § 11.35(b), is not to be included in the Federal Docket Management System (FDMS).

## **CONCLUSION**

As set forth herein, Woolpert seeks an amendment to Grant of Exemption No. 11111 pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA), to permit safe operation of the Nova Block III UAS commercially, as set forth in Grant of Exemption No. 11111, while utilizing a PIC holding a private pilot certificate or higher and an appropriate airman medical certificate. By granting this Petition, the FAA Administrator will be fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, while also advancing the interests of the public, by allowing Woolpert to safely, efficiently, and economically operate the Nova Block III UAS commercially within the NAS.

**WHEREFORE**, in accordance with the Federal Aviation Regulations and the FAA Modernization and Reform Act of 2012, Section 333, Woolpert respectfully requests that the Administrator grant this Petition for an amendment to Grant of Exemption No. 11111 for relief from the requirements of 14 C.F.R Section 61.113(a) & (b), and permit Woolpert to utilize a PIC holding a private pilot certificate or higher and an appropriate airman medical certificate while conducting UAS aerial acquisitions and research within the NAS.

Dated: February 23, 2015

Respectfully submitted,

**The Aviation Law Firm**

*/s/ Gregory S. Winton*

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UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC

Regulatory Docket No. FAA-2014-0506

**WOOLPERT, INC.'S PETITION FOR AMENDMENT TO CONDITION AND  
LIMITATION NUMBER 27 OF GRANT OF EXEMPTION NO. 11111**

Submitted on February 13, 2015

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*Attorneys for Petitioner*

Petitioner, Woolpert, Inc. (“Woolpert”), by and through undersigned counsel, pursuant to the provisions of the Federal Aviation Regulations and the Federal Aviation Administration (“FAA”) Modernization and Reform Act of 2012, Section 333, Special Rules for Certain Unmanned Aircraft Systems, hereby petitions the Administrator for an amendment to the conditions and limitations of Grant Of Exemption No. 11111 (Regulatory Docket No. FAA-2014-0506), which granted to Woolpert an exemption from 14 C.F.R § 91.119(c) to the extent necessary to allow Woolpert to operate the Altavian Nova Block III unmanned aircraft system (“UAS”) for the special purpose of precision aerial surveys.

Specifically, Woolpert seeks an amendment to Exemption No. 11111 to the extent necessary to allow Woolpert to operate the Nova Block III UAS within five (5) nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart if a letter of agreement with that airport’s management is obtained, and the operation is conducted in accordance with a Notice To Airmen (“NOTAM”) as required by the operator’s Certificate of Authorization (“COA”).

Woolpert submits that the conditions and limitations set forth in Exemption No. 11111 and herein will ensure the safety of the National Airspace System (“NAS”), as well as the safety of persons or property on the ground.

In support thereof, Woolpert states as follows:

**A. Name And Address Of The Petitioner.**

The name and address of the Petitioner is:

Woolpert, Inc.  
4454 Idea Center Blvd.  
Dayton, Ohio 45430



The point of contact for this Petition and specific contact information is as follows:

Gregory S. Winton, Esq.  
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**B. Woolpert Seeks To Amend Condition and Limitation No. 27 Of Grant Of Exemption No. 11111.**

Condition and Limitation No. 27 of Exemption No. 11111 states the following:

The Nova Block III UA may not operate within 5 nautical miles of the geographic center of an airport as denoted on a current FAA-published aeronautical chart.

Exemption No. 11111 at page 12, ¶27.

**C. Extent Of The Amendment That Woolpert Seeks And The Reason Woolpert Seeks To Amend Condition And Limitation No. 27.**

Woolpert submits that Condition and Limitation No. 27 be amended as follows:

The UA may not operate within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart unless a letter of agreement with that airport's management is obtained, and the operation is conducted in accordance with a NOTAM as required by the operator's COA. The letter of agreement with the airport management must be made available to the Administrator upon request.

This relief is requested because Woolpert's original Petition For Exemption (Regulatory Docket No. FAA-2014-0506) did not request operation of the Nova Block III UA within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart.

However, Woolpert proposes that it may safely operate the Nova Block III UA within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart if: (1) a letter of agreement with that airport's management is obtained; (2) the operation is conducted in accordance with a Notice to Airmen ("NOTAM") as required by Woolpert's

Certificate of Authorization (“COA”); and (3) the letter of agreement with the airport management is made available to the Administrator upon request.

**D. The Reasons Why Granting Woolpert’s Request For Amendment Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.**

Granting the present petition for amendment will further the public interest as set forth by the Administrator in Exemption No. 11111. As the Administrator held in Exemption No. 11111 at page 8, the enhanced safety achieved using an unmanned aircraft (“UA”) with the specifications described by Woolpert and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, is good cause to find that Woolpert’s UAS operation is in the public interest. Woolpert’s UAS operations will provide benefits to agriculture, science, the environment, wildlife monitoring, forestry, and energy. Furthermore, the benefits of Woolpert’s proposed operation of the Nova Block III UAS will be realized without implicating any privacy issues.

Woolpert’s proposed amendment not only furthers the public’s interest as set forth by the Administrator in Exemption No. 11111, it also is another step forward in fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, by allowing Woolpert to safely, efficiently, and economically operate the Nova Block III UAS commercially within the NAS.

**E. The Reasons Why Granting An Amendment To Condition And Limitation No. 27 Would Not Adversely Affect Safety.**

Woolpert proposes that it may safely operate the Nova Block III UA within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart because: (1) a letter of agreement with that airport’s management is obtained; (2) the operation is conducted in accordance with a NOTAM as required by Woolpert’s Certificate of Authorization

(“COA”); and (3) the letter of agreement with the airport management is made available to the Administrator upon request.

Woolpert respectfully submits that an equivalent level of safety as presented in Exemption No. 11111 will be maintained because no operations within 5 nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart will be conducted without first gaining airport management’s approval. As such, airport management will be aware of Woolpert UAS operations in the NAS and will be able to ensure safe operations. Furthermore, all users of the NAS will be fully aware of Woolpert’s operation of the Nova Block III UAS, as the operation is conducted in accordance with a NOTAM as required by Woolpert’s COA.

Additionally, the FAA has previously issued a condition and limitation identical to Woolpert’s proposed amendment in Grants of Exemption specific to UAS, in circumstances similar, in all material respects, to those presented herein (e.g. Exemption Nos. 11161, 11160, 11159, 11158, 11157, 11153, and 11150).

Woolpert further submits that safety will be ensured as all other conditions and limitations within Exemption No. 11111 will remain in effect.

**F. A Summary That Can Be Published In The *Federal Register*, stating:  
The Rules From Which Woolpert Seeks Exemption:**

*Woolpert, Inc. seeks to amend Condition and Limitation number 27 of Grant of Exemption No. 11111.*

**A Brief Description Of The Nature Of The Exemption Woolpert Seeks:**

*This amendment to Grant of Exemption No. 11111 will permit Woolpert, Inc. to safely operate the Nova Block III UA within five (5) nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart if: (1) a letter of agreement with that airport’s management is obtained; (2) the operation is conducted in accordance with a Notice to Airmen (“NOTAM”) as required by Woolpert’s Certificate of*

*Authorization (“COA”); and (3) the letter of agreement with the airport management is made available to the Administrator upon request.*

**G. Any Additional Information, Views, Or Arguments Available To Support Woolpert’s Request.**

This Petition is made pursuant to the FAA Modernization and Reform Act of 2012 Section 333, which directs the Secretary of Transportation to determine if certain UAS may operate safely in the NAS. As such, Woolpert’s request for amendment may be granted pursuant to the authority of FMRA Section 333 and 14 C.F.R. Part 11, as set forth above.

**CONCLUSION**

**WHEREFORE**, in accordance with the Federal Aviation Regulations and the FAA Modernization and Reform Act of 2012, Section 333, Woolpert respectfully requests that the Administrator grant this Petition for an amendment to Exemption No. 11111 to the extent necessary to allow Woolpert to operate the Nova Block III UAS within five (5) nautical miles of an airport reference point as denoted on a current FAA-published aeronautical chart if a letter of agreement with that airport’s management is obtained, and the operation is conducted in accordance with a Notice To Airmen (“NOTAM”) as required by the operator’s Certificate of Authorization (“COA”).

Dated: February 13, 2015

Respectfully submitted,

**The Aviation Law Firm**

*/s/ Gregory S. Winton*

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